

Application No. 09/871,723
Filed: June 11, 2001
TC Art Unit: 2665
Confirmation No. 3064

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph that begins on page 1, line 24 as follows:

As LAN technology has developed, there has also been development in the technologies used in traditional telephony communications. Pulse code modulation (PCM) of voice signals and synchronous time-division multiplexed (TDM) transmission channels have been in use for many years. With advances in glass-optical fiber technology, communications carriers have devised very high data rate signals for fiber optic transmission that carry thousands of individual TDM channels using hierarchical TDM techniques. In particular, a set of standardized synchronous transport signals (STSs) are utilized in networks that adhere to Synchronous Optical Network (SONET) standards. Synchronous digital signals having data rates ranging from about 51 Mb/s to over 100 Gb/s are defined in SONET, each signal generally incorporating an integer number of basic "STS-1" signals.

Please amend the paragraph that begins on page 3, line 28 as follows:

~~It has been known to employ a p~~Protocols, known such as High-Level Data Link Control (HDLC), have been used to transmit variable-length frames in an otherwise undifferentiated signal such as an OC-3c signal. Like other framing protocols, HDLC employs special "escape" characters and "escape sequences" that convey signaling information such as frame boundaries. One problem with such techniques is that the pattern of the escape character generally occurs in the data stream being framed, and if transmitted without modification would be erroneously interpreted as an escape character. To deal with this situation, a technique called "character stuffing" is used. Basically, every occurrence of the escape character in the data stream is replaced with a multi-character escape sequence that signifies that the receiver should insert the pattern of the escape character in the received data stream.

Please amend the paragraph that begins on page 4, line 21 as follows:

~~It has also been known to employ a A~~number of links have been used to carry a single stream of packets or LAN frames. The stream is divided into separate logical channels, each of

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which is carried over a corresponding link. This technique has the effect of providing a desired overall transmission capacity by employing a number of lower-capacity links. Systems employing such techniques are generally referred to as "multilink" systems. It is generally necessary to append control information to the data transmitted over each link to enable a receiver to reconstruct the original data stream. On each link, it is necessary to frame or otherwise delineate the data and control information just as in the case of non-multilink transmission. When HDLC or similar framing is employed, the above-described problem of excessive rate expansion may exist.

Please amend the Abstract as follows:

A network device transfers variable-length data frames across a synchronous network employing a multiple-channel synchronous transport signal. Encapsulation logic encapsulates each data frame in a point-to-point frame including a body portion of the data frame and a length value located in a beginning portion of the point-to-point frame. Segmentation logic divides each point-to-point frame into fixed-sized segments, a first segment carrying the beginning portion of the point-to-point frame. Transmitting circuitry transmits the ~~segments-frame~~ segments as payloads of at least one channel of the synchronous transport signal, the payloads being marked so as to be identifiable. Receiving circuitry receives payloads of at least ~~another one~~ one channel of the synchronous transport signal and from each received set of payloads regenerates a corresponding point-to-point frame using the length value from the first segment thereof. De-capsulation logic de-capsulates each regenerated point-to-point frame to recover the corresponding data frame.

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